



**Dulux**<sup>™</sup>  
let's colour

**Dulux**  
**TRADE**

IMPORTANT  
**INFORMATION**



July 2012

## INDEX

### LEAD IN PAINT LETTER

### DULUX BEST PAINTING PRACTICE

### CERTIFICATIONS

- Empowerdex Rating
- Green Building Council Member

To whom it may concern

#### LEAD IN PAINT

**Our innovative products and services will create sustainable value by systematically reducing the ecological footprint of the whole-life decorating process and contributing to more sustainable home, work and leisure environments.**

As a subsidiary of the AkzoNobel group of paint companies, Dulux's product stewardship policies are an integral part of its Sustainability Strategies in Africa. The company aspires toward being an innovative, socially and environmentally responsible organisation with brands that provide value for money, good technical performance and minimal impact on the environment or health. In support of this, Dulux is an active participant in industry association's which are active in the development of equitable and attainable standards throughout the world.

The elimination of the use of lead compounds in consumer products forms part of the AkzoNobel product stewardship initiatives.

Lead compounds are commonly used the world over in pigments used to colour paint and some countries have agreed on "safe" limits for paint manufacturers to use as a guideline.

As a leading paint manufacturer in South Africa, Dulux belongs to SAPMA (the South African Paint Manufacturers Association). This association has taken a stand on the concerns with respect to lead content in paint and deem a 0.01% limit favourable in dried paints. Paints outside this limit are generally safe for use, but should be excluded from use on articles that could be handled by children.

Products outside this limit should therefore be clearly labelled "Not suitable for use on products that may be handled by children".

On 1 October 2007, following successful product development programmes to ensure product performance, Dulux proudly began the manufacture of products in line with the SAPMA lead benchmark and introduced a "zero lead" policy.

Although trace elements of lead can be found in most matter, Dulux's strict procedures and processes ensure that no lead is added during the paint manufacturing process, rendering Dulux products safe for consumer use.

Any additional information can be obtained from the Dulux Technical Service Helpline on 0860 330111.

Yours sincerely

**Tony Pillay**  
Director, Research and Development

ICI Dulux (Pty) Ltd is part of AkzoNobel  
ICI Dulux (Pty) Ltd Reg. No. 1946/020769/07 Directors: R.P.Stuckes\*(Chairman), J.F. Smidt (Managing), \*British

### 1. DEFECTS IN BUILDINGS AND REMEDIES

#### DAMPNESS AND MOISTURE IN WALLS Structural dampness

- Remedy Rising dampness in solid walls
- Remedy Dampness in boundary walls, earth-retaining walls and any free-standing structures
- Remedy Areas prone to penetrating damp
- Remedy Efflorescence and lime bloom

#### DEFECTS AND CRACKS IN PLASTER AND CONCRETE

##### Cracking

- Remedy Hair cracks (-0.2mm)
- Remedy Medium plaster cracks (+0.2mm & -2mm)
- Remedy Extensive map-crazed cracks
- Remedy Large structural cracks (+2mm), holes and corner cracks
- Remedy Movement / Expansion joints
- Remedy Spalling / Carbonating / Friable plaster and concrete
- Remedy Mapping / Repair witnesses / Rough and uneven plaster

### 2. PREPARATION AND PRIMING

#### CLEANING

- Preparation Exterior
- Preparation Interior
- Fungal Growth (Lichen and Algae)
- Pre-cast Concrete

#### THE CORRECT USE OF PRIMERS

- Primers for Cement and Gypsum (Rhinolite) Plaster

#### TOUCHING UP OF PAINTED SURFACES

- Exterior
- Interior

### 3. GENERAL PRECAUTIONS AND ADDITIONAL INFORMATION

### 4. BASIC FIRST AID

### 5. LEAD FREE

#### PREVIEW TO THE IMPORTANCE OF GOOD PAINTING PRACTICE AND THE KEY ELEMENTS

##### Sound surfaces produce sound coating systems!

Paint coatings are composed of different chemicals, which combine synergistically to provide the paint with its properties. However, in order to derive the optimum paint properties and maximise the longevity of the coatings, it is of paramount importance that the paint coating is applied using best painting practices and according to the manufacturer's specifications. In the main, it is essential that the substrate to which the paint coating is applied is free of defects that will affect the adhesion of the coating system. Adhesion to the substrate is the key to coating longevity. In addition, it is important to use a paint coating system that will protect the building substrates and enhance the aesthetics of the building. This document addresses all the elements of surface defects, and provides detailed instructions for the repair, removal, cleaning and general preparation that is required prior to the painting of new and existing plaster, concrete, brickwork, and building boards.

Prevention is better than cure and the secret of a perfect, long-lasting paint finish is a sound, clean and dry substrate, and the correct use of products. It is important to note that for optimum coating performance, fresh plaster should be allowed to dry and cure adequately, i.e. one week drying for every 5mm thickness, and longer in cold or damp weather.

## 1. DEFECTS IN BUILDINGS AND REMEDIES

#### DAMPNESS AND MOISTURE IN WALLS

- Key Products for Remedy: Dampshield and Rainshield

##### Structural Dampness

This refers to the presence of unwanted moisture in the structure of a building, either the result of intrusion from outside or condensation from within the structure. The most damage to paint systems, and eventually to the substrate and the structure, is caused by excessive moisture in the walls.

Damp can be of three categories, viz:

- **Condensation** due to temperature differences between moisture containing air and the building surfaces.
- **Rising damp** emanates from water in the ground. Rising damp is the common term for the slow upward movement of water in the lower sections of walls and other ground-supported structures by capillary action. The height of the rise is rarely above 1.5m.
- **Penetrating damp** is caused by rain and is also known as descending damp and lateral damp.

Prior to painting, the building needs to be inspected for all signs of dampness. Telltale signs of dampness are the deposition of salts on the surface, flaking paint, water staining and discolouration.

Pigments used in Dulux premium quality exterior coatings are chemically stable and UV stable under "normal" conditions i.e. moisture levels below 12%. The pigments used have the highest rating resistance to acid and alkali but at high moisture levels, soluble salts from the plaster composition and elsewhere are transported through the coating by the moisture and deposited on the coating surface. The result is discolouration of the surface of the paint and sometimes deterioration of plaster.

Prior to painting, it is essential that causes of dampness are established and cured. A damp proofing specialist or plumber should be consulted if necessary for rectification using appropriate water drainage and plumbing methods.

NB. *The Dulux Quality Guarantee excludes damage to coating systems arising from dampness and moisture ingress.*

#### REMEDY

##### RISING DAMPNESS IN SOLID WALLS

This occurs where plaster has been continued below DPC level, or in the absence of adequate DPC protection. On walls containing up to 50% moisture, apply **Fixit Dampshield** from the ground up to 1.5m, as an apron around the wall. Ensure application and preparation is in accordance with specification. Note that **Fixit Dampshield** is a moisture barrier and as such will not cure the source of the moisture, but merely remedy the effects.

#### REMEDY

##### DAMPNESS IN BOUNDARY WALLS, EARTH-RETAINING WALLS AND ANY FREE-STANDING STRUCTURE

For retaining walls, apply one coat of **Fixit Dampshield** and two coats of **Dulux Rainshield Fibre Reinforced Waterproof** on the earth retaining face of the wall. Allow to dry for a week before commencing with the earth piling. In the case of boundary or freestanding walls or parapet walls, the tops should be sealed with **Dulux Rainshield Fibre Reinforced Waterproof**, applied to achieve a waterproofing film thickness of 100 microns (at least two full coats). The waterproofing system should be taken up, over, and down the walls and extended at least 25mm down the sides. To prevent capillary action (water cohesion) the waterproofing system must be worked well into the substrate.

#### REMEDY

##### AREAS PRONE TO PENETRATING DAMP

Repair and seal any area of water ingress from roofs, balconies, horizontal or sloping wall tops, joints between windows and plaster reveals, etc. with **Dulux Rainshield Fibre Reinforced Waterproof**, applied to achieve a waterproofing film thickness of 100 microns (at least 2 full coats).

#### REMEDY

##### EFFLORESCENCE AND LIME BLOOM AS A RESULT OF EXCESSIVE MOISTURE

These are a result of water within the structure, dissolving salts and lime, then evaporating and leaving a white deposit on the surface. It should be brushed down and wiped with a dampened (not wet) sponge. The brushing/wiping must be repeated as often as the deposits appear. Painting must not commence until efflorescence has ceased.

## Dulux Best Painting Practice

### DEFECTS AND CRACKS IN PLASTER AND CONCRETE

#### Cracking

Cracking in walls can have numerous causes, but one of the main causes is the settlement of the building in combination with inferior plaster mix, and the presence of moisture and dampness. It is important to assess the cracking and ensure that it is not interfering with the structure of the building.

#### REMEDY

##### HAIR CRACKS (-0.2mm)

Remove dust and debris. Apply **Fixit Multi Purpose Exterior Crackfiller** with a filling knife. Work the filler into the crack, leave to dry and sand to a smooth surface.

On interior surfaces, use **Fixit Interior Crackfiller**. Allow to dry and sand to a smooth surface.

#### REMEDY

##### MEDIUM PLASTER CRACKS (+0.2mm & -2mm)

Rake out with a scraper blade. Treat fungal growth with either 4:1 water/HTH (chlorine), or 4:1 water/JIK (sodium hypochlorite). Rinse thoroughly with water and allow drying. Remove dust and debris. Apply **Fixit Multi Purpose Exterior Crackfiller** with a filling knife and smooth off with a wet knife.

On interior surfaces, use **Fixit Interior Crackfiller**. Allow to dry and sand to a smooth surface.

#### REMEDY

##### EXTENSIVE MAP-CRAZED CRACKS

Open and clean all cracks wider than 2mm according to instructions above (medium cracks). After all cracks have been opened and cleaned, coat the entire surface from corner to corner with **Fixit Smoothover Skimming Plaster**. Apply with a wet plastering trowel, or skimming tool. The product can be sanded, using water sandpaper and water.

On exterior, textured wall surfaces, **Dulux Rainshield Fibre Reinforced Waterproofer** may be applied from corner to corner in strict accordance with application instructions.

#### REMEDY

##### LARGE STRUCTURAL CRACKS (+2mm), HOLES AND CORNER CRACKS

Open out with a disc grinder in a V-shape to 3mm or larger. Cut on both sides of the wall. Treat fungal growth with either 4:1 water/HTH (chlorine), or 4:1 water/JIK (sodium hypochlorite). Rinse thoroughly with water and allow drying. Apply **Fixit Flexible Gap Acrylic Filler** in strict accordance with

application instructions. It may be necessary to build-up the necessary film thickness with more than one application, as the product may shrink in larger cracks.

#### REMEDY

##### MOVEMENT / EXPANSION JOINTS

Remove the defective existing sealant and clean out thoroughly. Ensure the joint is cut through the plaster into the brick. This will prevent the plaster from cracking next to the actual joint. Insert backing cord on both sides of the wall and fill with **Fixit Multi Purpose Heavy Duty Crack Filler** with a putty knife or small trowel, forcing the paste well into the backing cord and gaps. Where necessary, create an expansion joint in a V-shape to 3mm or larger. Use a disc grinder and cut on both sides of the wall. Follow instruction for cleaning and filling with backing cord and **Fixit Multi Purpose Heavy Duty Crack Filler**.

#### REMEDY

##### FRIABLE PLASTER AND MORTAR

Plaster of which the adhesion is suspect must be removed down to sound brickwork, and re-plastered to match existing.

Mortar pointing in brickwork that is soft and friable, must be scraped out between the bricks and re-applied with a 1:3 cement/sand mortar.

#### REMEDY

##### CONCRETE SPALLING (CARBONATING)

This occurs when the reinforcing steel in concrete corrodes. The corrosion is caused by the ingress of salt and carbon dioxide into the concrete. When steel corrodes, the rust has a larger volume than the original steel and this expansion breaks the surrounding concrete. Concrete where spalling (carbonating) occurs must be chipped away and removed. Prepare damaged and rusted steel reinforcing by cleaning away all corrosion down to bright, shiny metal. Paint with a corrosion resistant paint system. Inadequate cleaning, repair and painting, may lead to further contamination of the concrete. Ensure that all concrete areas with a negative pH (less than 12) are removed and repaired. Re-instate with a lightweight cement mix, or a patching plaster, or apply **Fixit Expanding Foam**, in strict accordance with application instructions.

#### REMEDY

##### MAPPING / REPAIR WITNESSES / ROUGH AND UNEVEN PLASTER

Apply **Fixit Smoothover Skimming Plaster** with a wet plastering trowel or skimming tool. The product can be sanded, using water sandpaper and water. It may be necessary to build-up the required film thickness with more than one application.

## 2. PREPARATION AND PRIMING

### CLEANING

Dirt, dust, loose/flaking paint and chalk must be removed before painting. Chalk is loose white powder from previous coating. It is easily detected by rubbing the surface with a black cloth.

#### Exterior

To remove flaking paint, chalkiness, as well as dirt and debris, clean exterior walls by high-pressure water blast, using a rotating nozzle at a pressure of 100 to 120 bars. Remove any remaining loose, flaking paint from the surface with a sharp paint scraper and firm hand pressure. It is not necessary to remove well-bonded layers of paint. Crosshatch tests should be done on areas where the adhesion of paint is suspect. Feather edges of tightly bonded paint with rough to medium grit paper to smooth them off and provide an even surface without repair witnesses.

N.B. *For chalked paint that cannot be removed by washing, **Dulux Trade Bonding Liquid** may be applied to penetrate and bond the surface.*

#### Interior

Wash interior wall surfaces with a solution of **Sugar Soap**. This will ensure that any dirt and grease on the surface, as well as chalked paint, has been removed. Rinse thoroughly with clean water.

Enamel surfaces to be over-coated with water-based paints: To aid adhesion, sand to a matt finish and apply **Dulux Undercoat for All Surfaces**.

#### Fungal Growth (Lichen and Algae)

Scrub with one of the following solutions: either 4:1 water/HTH (chlorine), or 4:1 water/JIK (sodium hypochlorite). Ensure that the areas are completely saturated, and allow the solution to react for a minimum of four (4) hours. In some instances, the fungi or algae may have to be wire brushed to open the spores and to aid the solution penetrating the spores and killing the fungi. Rinse the complete wall surface thoroughly with clean water.

#### Pre-Cast Concrete

Acid etch the surface with a solution of hydrochloric acid to remove laitance, uncured cement, etc. as follows: use one (1) volume hydrochloric acid to two (2) volumes water. Alternatively, use a cleaner such as mortar lift. More than one application may be necessary to achieve a paintable surface. N.B. Hydrochloric acid is corrosive - please wear protective clothing, gloves, masks and eye goggles against splashes. Allow the acid solution to react for

15 minutes and then wash away all acid with copious amounts of clean water. Remove excess water and allow thorough drying.

N.B. *When in close proximity to the ocean, it is important to ensure that surfaces are free of contaminants, specifically salt deposits, before painting can commence. Inter-coat washing is therefore essential.*

### THE CORRECT USE OF PRIMERS

The correct primer should always be applied to a new substrate to ensure that it is sealed and to ensure coating adhesion. Substituting the primer with a non-primer, or an economical contractor's PVA may compromise the coating system, as the system is only as strong as its weakest link. The PVA may not perform adequately as a primer because alkali attack or any moisture in the structure can weaken it, resulting in loss of adhesion and failure of the entire coating system.

#### Primers for Cement and Gypsum (Rhinolite) Plaster

**Dulux Primer for New Plaster** is recommended as a primer for smooth interior plaster surfaces, new and exposed ceiling boards, as well as new and exposed Rhinolite (2-coat plaster). Surfaces must be allowed to dry out thoroughly – no more than 12% moisture content.

**Dulux Primer for New Plaster** is also the recommended primer/sealer for all areas where crackfiller has been applied. Crack filler is porous and if left unsealed, it will absorb binder from the topcoats, resulting in dull patches.

**Dulux Trade Plaster Primer – Moisture Tolerant** may be used as an early primer for newly plastered walls, as it tolerates moisture of up to 30%. It protects topcoats from alkali attack and efflorescence.

**Dulux Trade Fillercoat** is recommended as an alternative plaster primer on rough wood-floated exterior plaster, applied unthinned to the total wall surface. **Dulux Trade Fillercoat** is alkali resistant and has a high film build with excellent filling properties, ensuring a firm base and smooth surface for high quality final coats.

**Dulux Trade Ecosure Water-Based Plaster Primer** is an environmentally friendly primer for use on new dry interior and exterior porous surfaces such as gypsum plaster, brick, concrete, cement, and all types of composition boarding. A minimum of two finishing coats to be applied on all surfaces.

## Dulux Best Painting Practice

---

### TOUCHING UP OF PAINTED SURFACES

In the manufacture of coloured paint, every effort is made to control the colour consistency between batches so that there are no perceptible differences. However, it is good practice to use cans from the same batch to eliminate any differences.

**Touching-up must always be done from corner to corner and from top to bottom.**

#### Exterior

If painting from corner to corner is not done, the following problems may result:

- Where newly painted walls have been damaged, the same principle applies as for the redecoration of existing surfaces: Where touch-ups are done on a wall, there will be a colour difference due to the extra depth of colour on that one spot.
- The touched-up patch will also stand slightly proud on the walls, which will result in an uneven appearance. Furthermore, light reflection on uneven surfaces will result in sheen differences.
- Touch-ups and patching are usually done with a brush and these brush marks will contribute to the difference in appearance, against a background where a roller was previously used.
- The effect of touch-ups and spot-patching will be made worse in cases where a crack filler has been used on damaged areas – touching up/patching without a sealer/primer will result in a dull, rough appearance where the crack filler has absorbed the binder in the topcoat.

#### Interior

- Touch-ups and patching are usually done with a brush and these brush marks will contribute to the difference in appearance, against a background where a roller was previously used.
- The effect of touch-ups and spot-patching will be made worse in cases where a crack filler has been used on damaged areas – touching up/patching without a sealer/primer will result in a dull, rough appearance where the crack filler has absorbed the binder in the topcoat.
- To avoid an effect known as picture framing, cutting of corners and edges should always be followed by rolling.

**Please bear in mind that the appearance of a colour can depend on the type of lighting. Therefore, check the colour in actual lighting conditions that will be used.**

*N.B. If repainting from corner to corner is not a viable option, we recommend that the Paint Distributor eye-match the existing colour on the walls. A better colour match will be achieved if paint from the same batch is tinted and boxed. Please bear in mind that*

*the appearance of a colour can depend on the type of lighting. Therefore, check the colour in the actual lighting conditions that will be used.*

### 3. GENERAL PRECAUTIONS AND ADDITIONAL INFORMATION

---

- Colour references are as accurate as printing will allow. Please refer to the in-store stripe cards or standard card, or on-shelf colour displays for an accurate representation of the colour. Among others, the following factors may affect final colour appearance: product sheen and texture, colour and light reflections, application, surface texture and preparation. A wet sample applied to the wall that will be painted, will show the true colour of the final finish.
- For best colour and sheen consistency, it is advisable to use containers of the same batch number, or to mix different batches together in a large container, or to finish in a corner before starting a new container.
- Before using any product, read the packaging. Note any special warnings or specialist applications needed.
- For detailed safety information, refer to Material Safety Data Sheets.
- Keep all paint products out of reach of children and animals.
- Ensure good ventilation during application and drying.
- When using solvent-based paints, respiratory protection must be worn.
- Do not smoke, eat or drink whilst handling.
- Do not apply during cold, very hot or wet weather; surface temperatures should be between 10°C and 35°C.
- Adhere to preparation and application instructions contained in Dulux Technical Data Sheets.
- All products should be stored in a cool, dry and well ventilated space. Flammable products should be kept away from heat sources, direct sunlight and open flames. Always check warnings on packs.
- For safe disposal instructions, refer to Material Safety Data Sheet.

### 4. BASIC FIRST AID

---

**First Aid should only be administered by a trained individual.**

#### Inhalation

Move to fresh air, keep the patient warm and still. If breathing becomes irregular or stops, administer artificial respiration.

#### Eye contact

Wash with clean, fresh water for several minutes, holding eyelids apart. Remove any glasses or contact lenses.

#### Skin contact

Remove contaminated clothing, wash skin thoroughly with water and soap. Do not use solvents or thinners.

#### Ingestion

If any products are accidentally swallowed, do not induce vomiting. Keep the patient at rest and seek immediate medical attention.

Always seek medical attention if in doubt or if symptoms persist.

### 5. LEAD FREE

---

All Dulux products are lead free. However, surfaces that have been repainted or older surfaces may contain lead. Special precautions should be taken during surface preparation of old painted surfaces.

For further advice, please contact the Dulux Technical Advice Centre.



# EMPOWERDEX

Economic Empowerment Rating Agency

## Empowerdex Rating

*Issued to:*

### ICI DULUX (PTY) LTD

BBB

### LEVEL FIVE CONTRIBUTOR

Company Information		Results	
Registration Number:	1946/020769/07	Procurement Recognition Level:	80.00%
VAT Number:	4360149548	Value Adding Enterprise:	No
Scorecard used:	GENERIC	Expiry Date:	01 September 2012

This Empowerdex Rating has been designed for display purposes only.  
 A separate Verification Certificate has been supplied for preferential procurement purposes.



EMPOWERDEX (PTY) LTD

02/09/2011

DATE



C e r t i f i c a t e



GREEN BUILDING COUNCIL SA

# MEMBER

The Green Building Council of South Africa thanks

ICI Dulux

for their valuable contribution as a

## GBCSA

MEMBER

| ORGANISATION |

JAN – DEC 2012

Date



Executive Chair



Chief Executive Officer

**AkzoNobel**

Tomorrow's Answers Today

For further information please contact Dulux on 0860 330 111

